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The Commander's Unit Analysis Profile (CUAP)

The CUAP questionnaire is a diagnostic tool for providing commanders of company-size units knowledge of enlisted attitudes related to such factors as Cohesiveness, Training, Leadership, Discipline, Job Satisfaction, Morale, Reenlistment, etc.

The questionnaire, which is completed in about 15 minutes, can be read by soldiers with minimal reading skills. Administration procedures require no special training and provide confidentiality for both respondents and commander. Only areas over which commanders exercise control are covered.

Timely, uncomplicated feedback is provided by two graphical unit-profiles. Profile 1 depicts for each factor the Unit Factor Score and the Average Score Other Units, which is the mean for all units recently utilizing the CUAP. Profile 2 depicts the Unit Percentile Rank for each factor.

The CUAP does not replace the commander's responsibility for judging the mission readiness of the unit; rather it identifies attitudinal proclivities that may detract from or contribute to overall operational effectiveness.

## The Commander's Unit Analysis Profile

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### Purpose

The purpose of this report is to describe the Commander's Unit Analysis Profile project being conducted by the Army Research Institute's Field Unit at Fort Hood, Texas. The Commander's Unit Analysis Profile is a new leadership tool available to commanders of company-size units and their supervisors.

### Background

The Commander's Unit Analysis Profile project was begun in late 1978 under the sponsorship of Headquarters III Corps, located at Fort Hood, and the Army's Forces Command. At a basic level, the problem addressed by the project was that today's junior commanders--i.e., commanders of the Army's "rank and file,"--must contend with a variety of factors that tend to produce apathy, dissatisfaction, and disunity among soldiers, with the potential consequence of a degradation in the operational effectiveness of military units. The list of these factors is complicated and long, and it will not be discussed in detail here. Let it suffice to note that the list includes such subjects as the erosion of military benefits, the military leadership drain, drug usage, racial problems, problems associated with the increased numbers of women in the Army, inefficient and ineffective training methods and policies, attitudinal consequences of societal changes, and similar factors. Such factors are not, of course, all unique to today's Army; however, they have perhaps become more severe in recent years. The Commander's Unit Analysis Profile project does not address these factors directly, but deals instead with their consequences, insofar as they are reflected in the attitudes and performance of the "common" soldier.

The commanders of these soldiers--i.e., commanders of company-size units--are charged with maintaining the "mission readiness" of their units at all times regardless of the degree of apathy, dissatisfaction, or disunity that may exist in their units, and in spite of any personal problems among their soldiers. Thus, there is a need today for these leaders to be aware of the salient features of the attitudinal and social environments that prevail in their units. Until recently, however, there has been no satisfactory, standardized method for commanders to systematically identify problem areas in this realm with sufficient accuracy and specificity.

The Commander's Unit Analysis Profile project--known more succinctly (and picturesquely) as CUAP--addresses the problem described by making available to the Army a unit-diagnostic system that provides commanders of company-size units a working knowledge of troop attitudes about a variety of factors related to mission readiness and operational effectiveness, such as unit cohesiveness, morale, reenlistment potential, quality of training and leadership, etc. The system involves a simple, retribution-free procedure that yields substantial but concise information about the attitudinal environment of lower-ranking (E1 - E5) enlisted personnel.

#### Development

Criteria. The nature of the CUAP system is portrayed by the list of developmental criteria that were established at the outset of the project and based in part upon suggestions and comments offered by Generals Robert Shoemaker and Marvin Fuller, who were successive commanders of III Corps and Fort Hood at the time. The criteria served the purpose of overcoming many problems commonly associated with surveys directed toward Army personnel. Not the least of these problems was that many questionnaires and surveys (administered by a variety of agencies) took troops away from their training missions and primary jobs during the administration period, but provided little compensation in the way of useful feedback to commanders, particularly at the company level. Furthermore, when feedback was provided, it was often so late in arriving that it was of little or no value to the commander. These and related concerns stimulated the following major developmental criteria associated with the CUAP project:

1. Administration of the questionnaire must involve minimal interference with normal troop training and work schedules; i.e., the instrument should be as short as feasible while maintaining its capacity to collect necessary and sufficient information.
2. The questionnaire must be easy to administer and the results easy to interpret, both without the assistance of specially-trained personnel.
3. Each questionnaire item must possess face-validity; i.e., its intent should be obvious, and there should be no so-called "double-meaning" items.
4. The questionnaire must be capable of being read by soldiers with minimal reading skills.
5. The questionnaire must be maximally sensitive to differences among company-size units; i.e., it should not contain items pertaining directly to battalion level, or higher, or items that all units tend to answer similarly.
6. The questionnaire should cover only subject areas over which the

small-unit commander can exercise significant influence.

7. The data format must facilitate rapid processing and timely feedback to the participating unit commanders (ideally, within 15 days).

8. The feedback must provide norms that permit commanders to compare their units with the combined results of all other units in the Army that have recently participated in the survey.

9. Anonymity must be provided for all questionnaire respondents, and confidentiality must be afforded all unit commanders who voluntarily request administration of the questionnaire in their units.

10. The feedback of questionnaire results should serve as a diagnostic tool for unit commanders to use in isolating and identifying factors that may be contributing to or detracting from unit operational effectiveness; but it should not be construed as providing an overall assessment of mission readiness, which should be based upon wider concerns and remain the responsibility of the unit commander.

Method. Development of the CUAP instrument was started with an original pool of 99 questionnaire items. These items were selected as a result of analyses of a variety of previously administered questionnaires and surveys: many of the items came from research questionnaires that had been used by the Army in other research programs; some were written especially for the CUAP. An attempt was made to tap all major topic areas considered related to the effective operation of company-size units and which lower-ranking enlisted personnel would find salient in their day-to-day lives. Of course, the topics also had to satisfy the criterion, specified earlier, that the unit commander must possess potential influence over the situation. Thus, for example, such topics as military pay were not addressed.

The 99 questionnaire items were formulated as interrogatives with 5-alternative, evaluative response scales, as in the example shown in Figure 1. The items were arranged intuitively into topic groups, or "factors," rather than randomly ordered--a procedure that could be viewed as possibly creating a response-set bias. However, for the

Does your company commander treat you with respect?		
[+2]	_____	Very often, or always
[+1]	_____	Often
[ 0]	_____	Sometimes
[-1]	_____	Seldom
[-2]	_____	Very seldom, or never

Figure 1. Fictitious item, portraying CUAP questionnaire item format.

purposes at hand, it seemed desirable to focus the soldiers' evaluative processes on one general topic at a time and to allow the topics and the several questionnaire items pertaining to each topic to flow in a related sequence throughout the questionnaire.

The pilot version of the questionnaire was administered to 21 tank companies at Fort Hood during June and July of 1979--about 675 soldiers altogether. A statistical factor analysis of the collected data yielded 23 factors, which approximated the original intuitive grouping of the items into factor areas, as one might expect on the basis of the face validity inherent in the items. This factor analysis was used to eliminate items that loaded on two or more factors as opposed to one, and items that did not load reasonably heavily on any single factor. The purpose here was, of course, to eliminate overlap among topic areas and to rid the questionnaire of items that did not seem to contribute much to any particular area. Of course, the item composition of the factor areas was revised wherever the analysis conflicted with the original, intuitively laid-out structure, taking care to maintain the face validity of each item within each factor area. This step necessitated the throwing away or revising of a few items because they did not seem to "fit" where the analysis placed them.

Another analysis was carried out to eliminate items that would not distinguish among the 21 military units in the sample. The purpose of this analysis was to create an instrument whose primary purpose would be to measure differences among military units rather than their absolute standings. Thus, a one-way analysis of variance was conducted on the data from each of the 99 questionnaire items, and those items were eliminated for which there was not a statistically significant difference at the .01 alpha level among the 21 companies. A few items that failed to reach the .01 level in this analysis, but nevertheless showed promise, were retained, with revisions.

A third analysis was conducted to eliminate undue redundancy from the questionnaire. Here, the intercorrelation matrix for the 99 items was examined for the presence of high inter-item correlations, and where two items were highly correlated--say .70 or greater--the less desirable (either statistically or otherwise) was usually eliminated.

These analyses, plus a common-sense examination in which some items were eliminated because of unforeseen format inconsistencies and the like, left 63 items, which were factor analyzed again. In this analysis, several of the original factors collapsed together as a consequence of the item eliminations, leaving 13 factors. However, several of these factors were arbitrarily divided into two separate "factors" when their content provided a logical basis for the division and when there were reasons external to the analysis for maintaining such divisions. For example, "Sports Activities" and "Social Activities" appeared as a single factor in the analysis, yet the distinction was maintained because it was felt that such a division would be important to unit commanders. This procedure increased the number of factor areas to 23 again.

At this point, seven new questions were added to "round out" some of the factors, and rewording was accomplished wherever it seemed improvements in readability or clarity could be effected. Then a new version of the questionnaire was produced. During the following year the new version, CUAP-8004, was administered to approximately 3,850 soldiers in eight FORSCOM divisions, namely the 1st Cavalry and 2nd Armored Divisions at Fort Hood, the 5th Infantry Division at Fort Polk, the 82nd Airborne Division at Fort Bragg, the 101st Airborne Division at Fort Campbell, the 9th Infantry Division at Fort Lewis, the 7th Infantry Division at Fort Ord, and the 4th Infantry Division at Fort Carson.

During May and June 1981, the data collected with CUAP-8004 were analyzed in a manner that was essentially identical to the analytical procedure used for the original pilot version. These analyses, along with a year's experience with the 8004 version, led to several major and many minor revisions, the result being a new 96-item, pilot instrument for which the 8004 norms were not applicable. This new pilot instrument was administered to 30 companies at Fort Hood during late June and early July 1981. The number of soldiers in the sample was about 1,100.

Again the data were subjected to the same type of analysis,<sup>1</sup> which produced the current version, CUAP-8108, an 88-item questionnaire covering 21 basic topic areas. In addition to minor revisions the new CUAP instrument contains some entirely new items, and it will therefore have to be analyzed after sufficient data have been collected. As of November 1981, CUAP-8108 had been administered to approximately 960 soldiers in 18 companies in the 1st Cavalry Division at Fort Hood and about 1,000 soldiers from units within the 7th Corps' 72nd Field Artillery Brigade in Europe. Work is currently underway for developing Army-wide norms.

Feedback profiles. Figures 2 and 3 are examples of the first of two feedback profiles provided to each unit commander who utilizes the survey. These examples depict actual data from the highest- (Figure 2) and lowest- (Figure 3) scoring units surveyed to date. Down the left-hand column of the profiles are listed the 21 topic, or "factor," areas. To the right of each factor title is a scale that ranges from -100 to +100. The military unit surveyed receives a score on each factor, which is portrayed by the large open triangle on the factor scale. Essentially, the scale can be interpreted as ranging from "very bad" to "very good,"--although emphasis is not placed on the absolute judgment implied by these terms; rather, it is placed on the unit's obtained score in relation to the average of all units recently utilizing the survey. That average is shown on the scale by the small solid arrowhead. Thus, the column of solid arrowheads represents the norms associated with

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<sup>1</sup>The item composition of the factors, item contents, and factor analytic results of the analysis are available from the author, upon request.

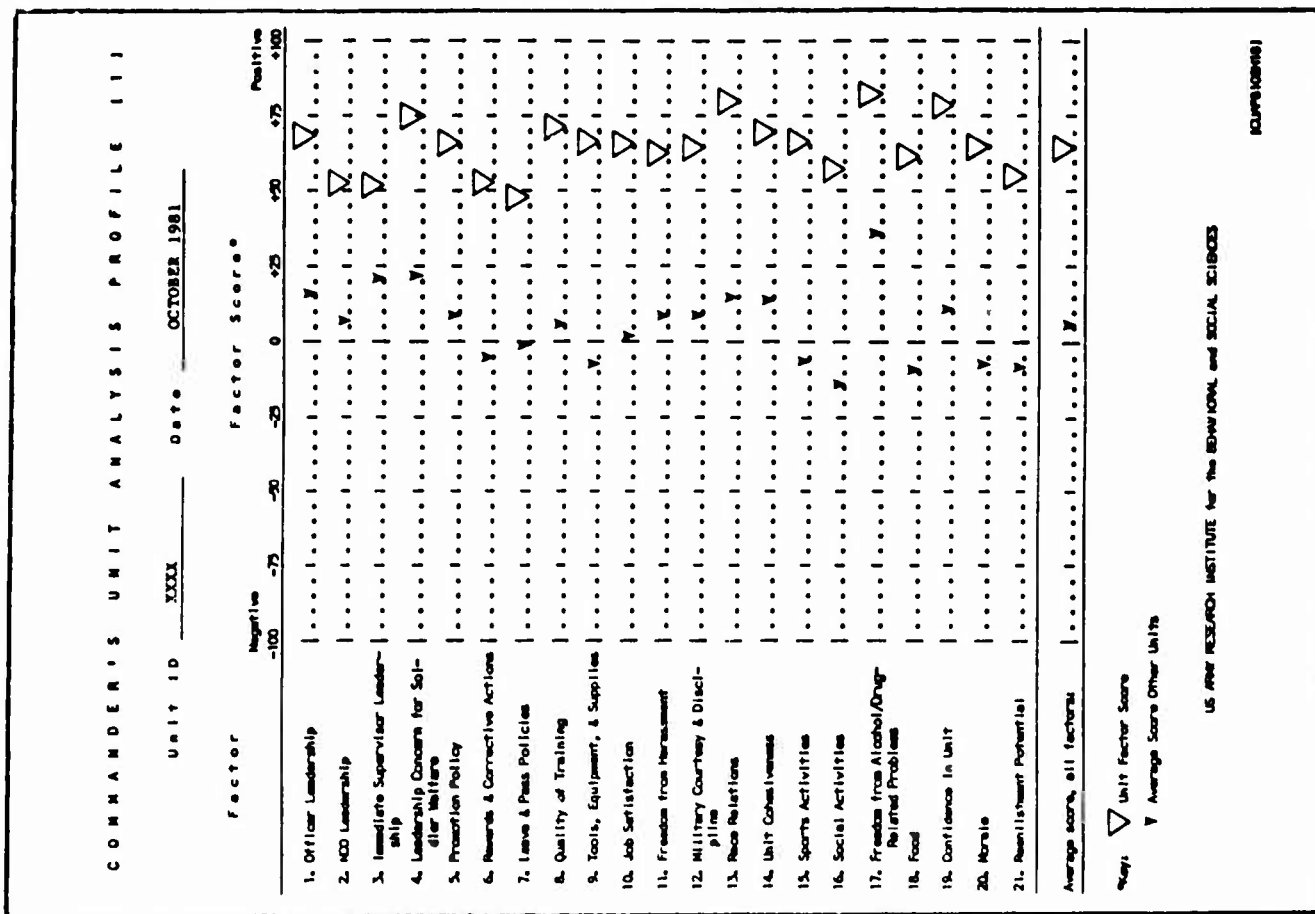


Figure 2. CUA2 factor-score feedback profile, depicting data from highest-scoring unit to date.

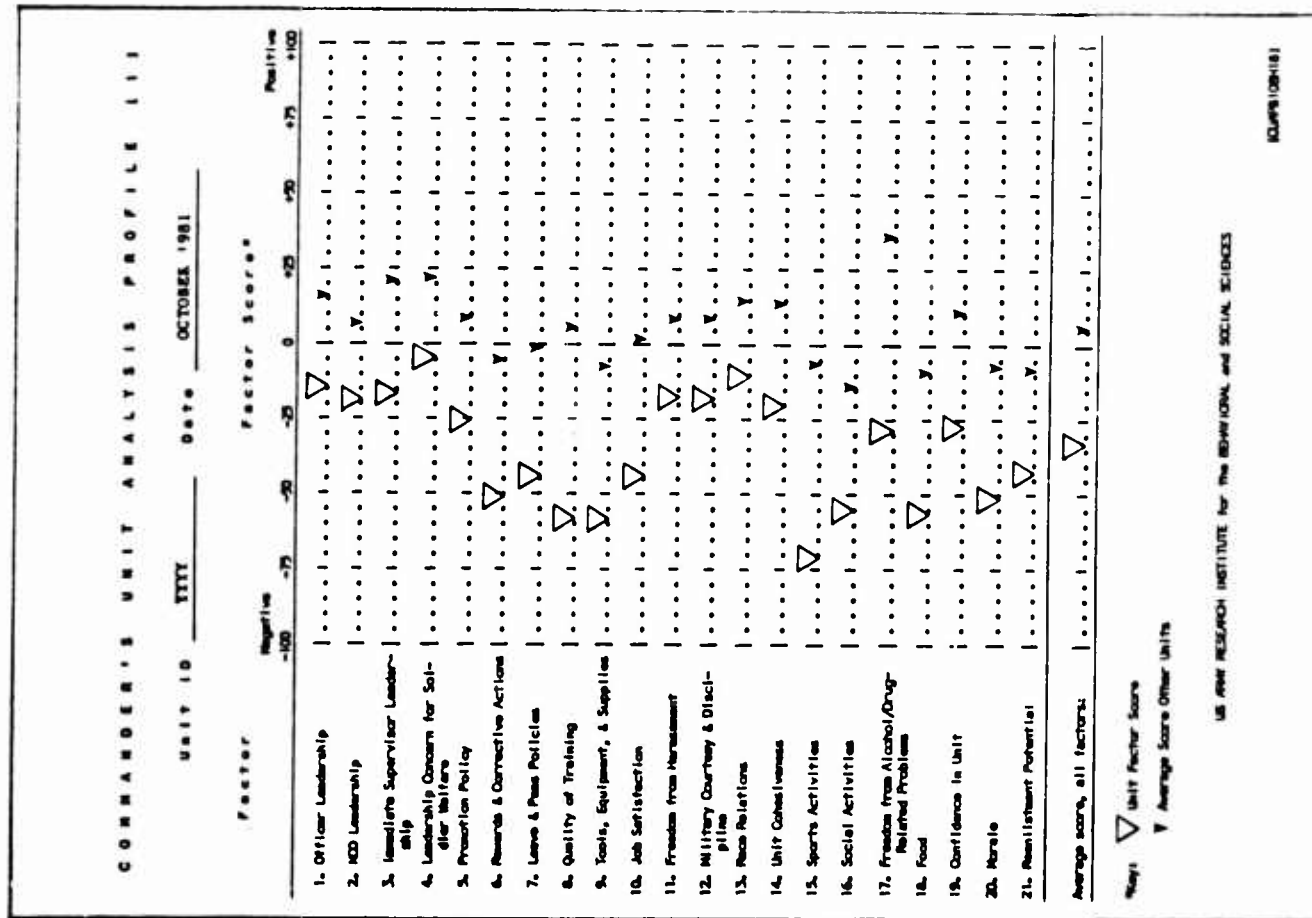


Figure 3. CUAP factor-score feedback profile, depicting data from lowest-scoring unit to date.

the questionnaire. It should be added that because the current version of the questionnaire has been in use for a short time only, the norms shown in Figures 2 and 3 must be considered tentative. As mentioned earlier, Army-wide norms are in the process of being developed.

The unit commander is also provided a second feedback profile that shows the percentile rank of the unit for each factor area. For each factor the percentage of all military units receiving equal or lower scores is indicated on a scale ranging from 0 to 100. This profile simply provides another way for commanders to see their units in comparison with other units that have utilized the survey. The percentile profiles for the highest- and lowest-scoring units to date are shown in Figures 4 and 5, respectively.

#### Utilization

The research described has resulted in the development of an easy-to-understand, multiple-choice questionnaire that can be administered by a single person to one, two, or three company-size units at a sitting. The amount of time required for a soldier to complete the instrument is typically 15 to 20 minutes; the total time required for instructions, administration, and collection of completed questionnaires is usually about 30 minutes. In its several developmental versions, the CUAP questionnaire has been administered to approximately 8,000 soldiers in more than 100 different company-size units in nine divisions within the continental US and US Army Europe.

Adequate future research and development for the CUAP project is greatly dependent upon continued enthusiastic reception of the project by Army leaders. Although the project requires close supervision by the Army Research Institute for the next few years, it is intended that the CUAP be implemented as soon as possible into the Army as a standard tool for leadership development. A complete system package, including automatic data processing, is scheduled for release by the end of the current fiscal year (FY 82).



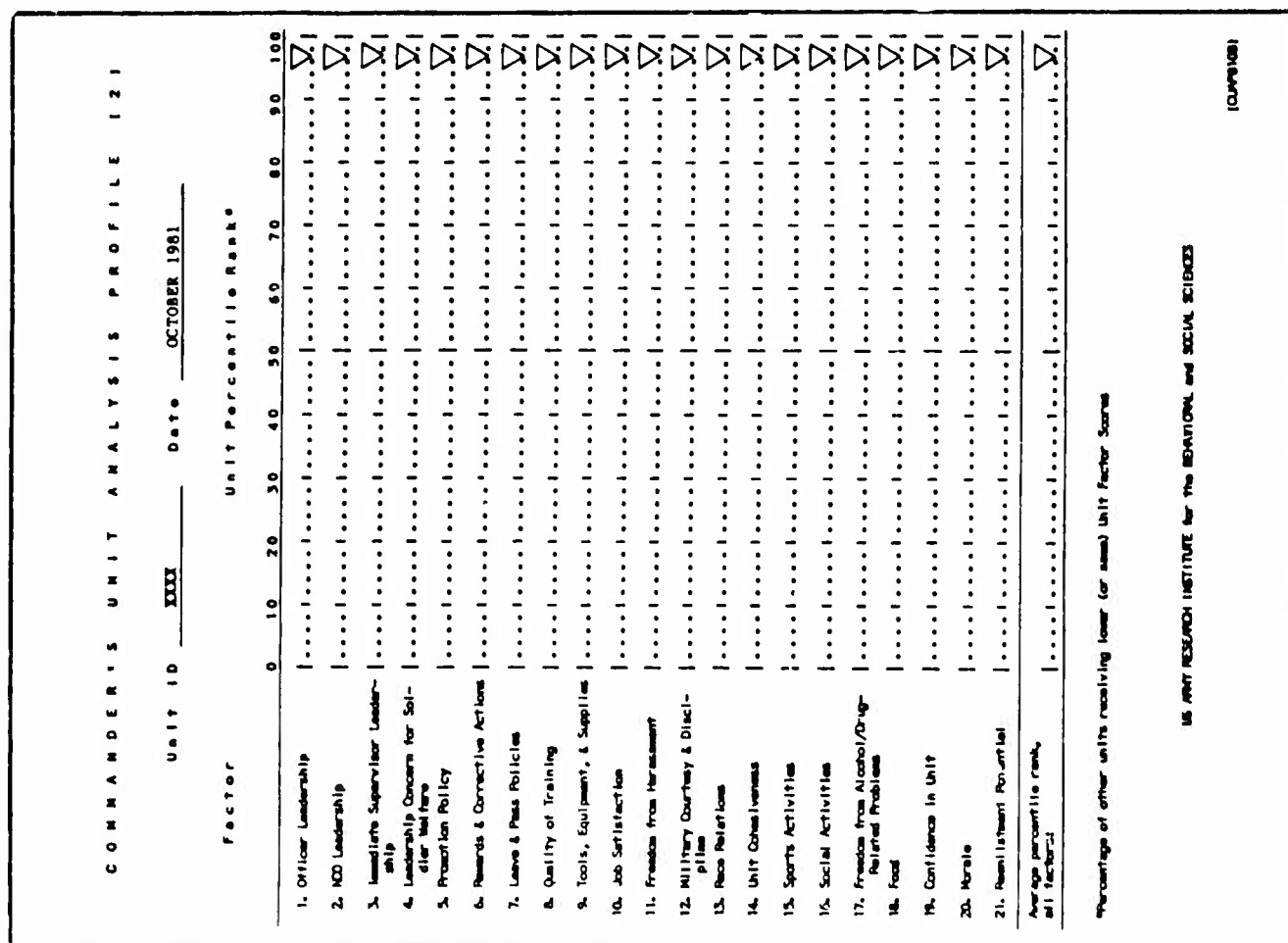


Figure 4. CUAP percentile-rank feedback profile, depicting data from highest-scoring unit to date.

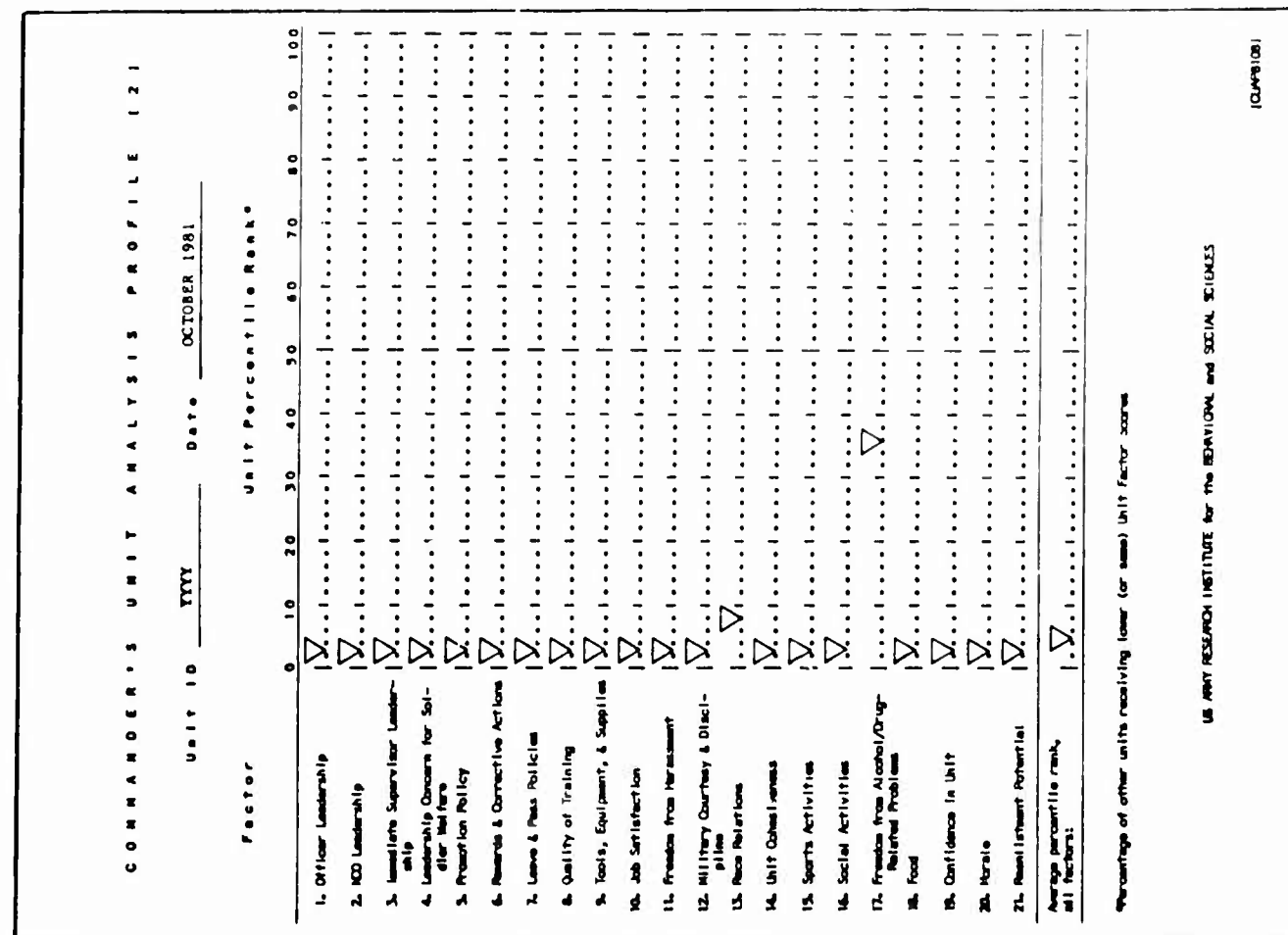


Figure 5. CUAP percentile-rank feedback profile, depicting data from lowest-scoring unit to date.